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10/593,167	09/14/2006	Yutaka Hattori	IPS1.003APC	9929

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EXAMINER	
MUSTAFA, IMRAN K	

ART UNIT	PAPER NUMBER
3663	

NOTIFICATION DATE	DELIVERY MODE
09/25/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/593,167	HATTORI ET AL.	
	Examiner	Art Unit	
	IMRAN MUSTAFA	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/14/06,5/4/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-17, 28 in the reply filed on 4/30/09 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-13, 16, 28 are rejected under 35 U.S.C. 103(a) as being anticipated by Lutz(US 6,725,136) in view of Yasuda(JP410119598A)

As to claim 1 Lutz discloses a traction control system for a vehicle comprising:

a sensor unit disposed in a rotation mechanism section including a wheel and a body of rotation positioned in the vehicle body side for securing the wheel and allowing the wheel to rotate(Abstract),

the sensor unit sensing a first acceleration generated in association with rotation in a direction orthogonal to a rotation axis (Column 3 lines 45-64), and

a second acceleration generated in a direction of rotation (Column 3 lines 45-64), and

converting sensing results of the first and second accelerations to a digital value (Abstract “microprocessor electrically coupled to the accelerometer and the wheel rotation speed sensor"), and

transmitting digital data including digital value (Abstract);

a monitor apparatus which receives the digital data transmitted from the sensor unit to acquire the sensing results of the first and second accelerations (Abstract); and

Lutz discloses of sensing the first and second accelerations acquire by the apparatus (Abstract). Lutz however does not explicitly disclose of a drive control unit configured to control at least one of a first drive actuator for an engine throttle and a second actuator for a drive torque distribution mechanism so as to cause a target drive force to be generated. Yasuda however teaches this of a drive control unit configured to control at least one of a first drive actuator for an engine throttle and a second actuator for a drive torque distribution mechanism based on at least the sensing results (Abstract). According to KSR (G) some teaching suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

As to claim 2 Lutz discloses a traction control system wherein:

the sensor unit includes means which senses a third acceleration generated in a direction of the rotation axis, converts the sensing result to a digital value, and transmits the digital value, included in the digital data, to the monitor apparatus(Abstract);

the monitor apparatus includes means which acquires the sensing result of the third acceleration (Abstract); and

Lutz does not explicitly disclose of the drive control unit has means which drives the first drive actuator based on the sensing results of the first, second and third accelerations. Yasuda however teaches of the drive control unit has means which drives the first drive actuator (Abstract).

As to claim 3 Lutz discloses a traction control system wherein:

the sensor unit includes means which senses a change of the second acceleration, means which senses the number of rotations per unit time based on the change of the second acceleration, and means which converts the sensed number of rotations to a digital value and transmits the digital value, included in the digital data, to the monitor apparatus (Column 5 lines 57-Column 6 lines 1-7);

the monitor apparatus includes means which receives the digital value of the number of rotations from the sensor unit (Abstract); and

Lutz does not explicitly disclose of the drive control unit has means which drives the first drive actuator based on the sensing results of the first, second and third accelerations and the sensing result of the number of rotations. Yasuda however teaches of the drive control unit has means which drives the first drive actuator (Abstract).

As to claim 4 Lutz discloses a traction control system wherein:

the sensor unit includes means which senses a change of the first acceleration, means which senses the running speed based on the change of the first acceleration, and means which converts the sensed running speed to a digital value and transmits the digital value, included in the digital data, to the monitor apparatus(Abstract);

the monitor apparatus includes means which receives the digital value of the running speed from the sensor unit (Abstract); and

Lutz does not explicitly disclose the drive control unit includes means which drives the first actuator based on the sensing results of the first, second and third accelerations and the sensing result of the running speed. Yasuda however teaches of the drive control unit has means which drives the first drive actuator (Abstract).

As to claim 5 Lutz discloses a traction control system additionally comprising:

at least another sensor unit disposed in at least another rotation mechanism section including another wheel and another body of rotation positioned in the vehicle body side for securing the other wheel and allowing the other wheel to rotate, the other sensor unit sensing another first acceleration generated in association with rotation in the direction orthogonal to the rotation axis, and another second acceleration generated in the direction of rotation, and converting other sensing results of the other first and second accelerations to another digital value, and transmitting another digital data including the other digital value(Abstract);

wherein the monitor apparatus additionally receives the other digital data transmitted from the other sensor unit to acquire the other sensing results of the other first and second accelerations (Abstract); and

Lutz does not explicitly disclose of a drive control unit is additionally configured to control a predetermined one of the first drive actuator and the second actuator based on certain sensing results of the first and second accelerations acquired by the monitor

apparatus. Yasuda however teaches of the drive control unit has means which drives the first drive actuator and the second actuator (Abstract).

As to claim 6 Yasuda teaches a traction control system wherein the drive torque distribution mechanism includes means which distributes to at least one from among the wheels, the drive torque generated in association with the drive of the engine throttle (Abstract).

As to claim 7 Yasuda teaches of a traction control system wherein the drive torque distribution mechanism includes means which varies the ratio of the drive torque to successive values from 0 to 100(Abstract).

As to claim 8 Lutz discloses a traction control system wherein:

the sensor unit includes means which senses a third acceleration generated in a direction of the rotation axis, converts the sensing result to a digital value, and transmits the digital value, included in the digital data, to the monitor apparatus(Abstract);

the monitor apparatus includes means which acquires the sensing result of the third acceleration (Abstract); and

Lutz does not explicitly disclose of the drive control unit has means which controls the drive of the predetermined one of the first drive actuator and the second actuator based on the sensing results of the first, second and third accelerations. Yasuda however teaches of the drive control unit has means which drives the first drive actuator (Abstract).

As to claim 9 disclose a traction control system wherein:

the sensor unit includes means which senses a change of the second acceleration, means which senses the number of rotations per unit time based on the change of the second acceleration, and means which converts the sensed number of rotations to a digital value and transmits the digital value, included in the digital data, to the monitor apparatus(Abstract);

the monitor apparatus includes means which receives the digital value of the number of rotations from the sensor unit (Abstract); and

Lutz does not explicitly disclose the drive control unit has means which controls the drive of the predetermined one of the first drive actuator and the second actuator based on the sensing results of the first, second and third accelerations and the sensing result of the number of rotations. Yasuda however teaches of the drive control unit has means which drives the first drive actuator (Abstract).

As to claim 10 disclose a traction control system wherein:

the sensor unit includes means which senses a change of the first acceleration, means which senses the running speed based on the change of the first acceleration, and means which converts the sensed running speed to a digital value and transmits the digital value, included in the digital data, to the monitor apparatus(Abstract);

the monitor apparatus includes means which receives the digital value of the running speed from the sensor unit (Abstract); and

Lutz does note explicitly disclose of the drive control unit has means which controls the drive of a predetermined one of the first actuator and the second actuator based on the sensing results of the first, second and third accelerations and the sensing

result of the running speed. Yasuda however teaches of the drive control unit has means which drives the first drive actuator (Abstract).

As to claim 11 Yasuda teaches a traction control system wherein: the drive control unit has means which controls the drive of the predetermined actuator so that the difference of the number of rotations becomes equal to or smaller than a predetermined value, when the difference between the numbers of rotations sensed by two or more predetermined sensor units is larger than the predetermined value (Abstract).

As to claim 12 Yasuda teaches a traction control system wherein: the drive control unit has means which controls the drive of the predetermined actuator so that the difference of the running speed becomes equal to or smaller than a predetermined value, when the difference between the running speeds sensed by two or more predetermined sensor units is larger than the predetermined value (Abstract).

As to claim 13 Lutz discloses a traction control system wherein the sensor unit is disposed in the body of rotation (Abstract).

As to claim 16 disclose a traction control system, wherein:

the sensor unit includes storage means which includes stored therein identification data unique to the self, and means which transmits the identification data included in the digital data(Column 5 lines 57- Column 6 lines 1-7, Abstract); and

the monitor apparatus includes means which identifies the rotation mechanism section based on the identification data (Column 5 lines 57-Column 6 lines 1-7, Abstract).

As to claim 28 Lutz discloses a sensor unit which senses an acceleration generated in association with rotation, disposed in a rotation mechanism section including a body of rotation positioned in the vehicle body side, for securing a wheel and allowing the wheel to rotate, and the wheel, the sensor unit being included in a traction control system for a vehicle sensing an accelerator operation state of the vehicle (Abstract) and

the sensor unit comprising:

means which senses a first acceleration generated in association with rotation in a direction orthogonal to the rotation axis, and a second acceleration generated in a direction of rotation (Abstract);

means which converts the sensing results of the first acceleration and the second acceleration to a digital value (Abstract); and

means which transmits digital data including the digital value (Abstract).

Lutz does not explicitly disclose driving an engine throttle drive actuator or of causing a target drive force to be generated. Yasuda however teaches of the drive control unit has means which drives the first drive actuator and cause a target drive force to be generated (Abstract). According to KSR (G) some teaching suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

4. Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being anticipated by Lutz(US 6,725,136) in view of Yasuda(JP410119598A) and in further view of Stewart(US 7010968)

As to claim 14 Lutz does not explicitly disclose of a traction control system that receives radio waves. Stewart however teaches a sensor unit includes means which receives a radio wave of a first frequency, means which converts the energy of the received radio wave of the first frequency to electric drive energy, and means which is operated by the electric energy to transmit the digital data by use of a radio wave of a second frequency (Abstract, Figure 1); and

the monitor apparatus includes means which radiates the radio wave of a first frequency, means which receives the radio wave of a second frequency, and means which extracts the digital data from the received radio wave of the second frequency (Abstract, Figure 1, 13). According to KSR (G) some teaching suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

As to claim 15 discloses a traction control system, wherein the first frequency is identical to the second frequency (Abstract).

5. Claims 17 is rejected under 35 U.S.C. 103(a) as being anticipated by Lutz(US 6,725,136) in view of Yasuda(JP410119598A) and in further view of Fujii(US 6263734)

As to claim 17 Lutz discloses a traction control system, wherein the sensor unit senses accelerations orthogonal to each other (Abstract). Lutz however does not explicitly disclose of a semiconductor acceleration sensor, having a silicon piezo diaphragm. Fujii however teaches of a semiconductor acceleration sensor, having a silicon piezo diaphragm (Abstract, Column 15 lines 1-16). According to KSR (G) some teaching, suggestion or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

The statements of intended use or field of use, [a)"for" clauses, b) "wherein" clauses] are essentially method limitations or statements or intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

> A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

> Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IMRAN MUSTAFA whose telephone number is (571)270-1471. The examiner can normally be reached on Mon-Fri 7:30AM-5:00PM, Alt Fri, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/13/2009

/Jack W. Keith/
Supervisory Patent Examiner, Art Unit 3663